

APPENDIX A

Table 4-1 (Continued)
PHYSICAL CONSTANTS OF INORGANIC COMPOUNDS

Name	Formula	Relative weight	Color, crystalline form, refractive index	Density	Melting point, °C	Boiling point, °C	Solubility in 100 parts
Europium							
(III) sulfate-8-water	$\text{Eu}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$	736.23	lt. pink		-8H ₂ O, 375	d 1600	2.5 g ²⁰
sulfide	EuS	184.02	blk. cub	5.75	1597		
telluride	EuTe	279.6	cub				
Fluorine	F_2	38.00	yel-gn gas, 1.00028775	1.554 ²⁵	-219.70	-188.20	d
fluorosulfate	$\text{F}(\text{SO}_3\text{F})$	118.06	col gas	(g/L)	-158.5	-31.3	
nitrate	$\text{F}(\text{NO}_3)$	81.01	col gas	(g/L)			
nitride, tetra-	F_4N_4	60.92	grn-yel gas	1.507 ²⁵	-175	-65.9	
perchlorate	$\text{F}(\text{ClO}_4)$	102.45	col gas, expl	4.85 ²⁵	-154	-82	by d, s meet
Fluoroamine, di-	N_2F_2	53.01	unstable gas	(g/L)	-167.3	-15.9 ²⁵	d
Fluoroboric acid	$\text{H}(\text{BF}_4)$	87.81	col liq		-116	-23.6	
Fluorophosphonic acid	$\text{H}_2(\text{PO}_3\text{F})$	99.99	col oily liq	1.818	d 130		
Fluorophosphonic acid, di-	$\text{H}_2(\text{PO}_3\text{F})_2$	102.99	col gum liq	1.583	-80		
Fluorophosphoric acid, hexa-	H_6PF_6	145.97	col gum liq	1.65	-96.5	115.9	
Fluorosilicic acid, hexa-	H_6SiF_6	344.08	col gum liq, 1.3465	1.463	d		
Fluorosulfonic acid	$\text{H}(\text{SO}_3\text{F})$		61% soln				
Gadolinium							
acetate-8-water	$\text{Gd}(\text{C}_2\text{H}_3\text{O}_2)_3 \cdot 8\text{H}_2\text{O}$	100.07	col liq	1.741 ²⁵	-87.3	165.5	
bromide, hexa-	GdB_6	157.25	metal, hep	7.895	1706	3000	
bromide	GdB_3	406.43	col, vtrc	1.611			21.6 ²⁵
chloride	GdCl_3	222.11	blue, cub	4.65			
chloride	GdCl_2	396.96	col, rhhd	4.57	770	1490	
fluoride	GdF_3	263.61	wh. hex, hygr	4.52 ²⁵	602	1580	
hydride, di-	GdH_2	214.25	wh. hex	7.047	1231	2777	
		199.27		7.08 ²⁵			
Gadolinium							
bromide	$\text{Gd}(\text{OH})_3$	308.27	yellow, hexa-				
iodide, di-	$[\text{Gd}^{3+}(\text{e}^-)(\text{I}^-)_2]$	411.06					
iodide, tri-	GdI_3	537.96	yel, hex	2.321	925		
nitrate-6-water	$\text{Gd}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$	451.36	col, tric, deliq				
oxalate-10-water	$\text{Gd}_2(\text{C}_2\text{O}_4)_3 \cdot 10\text{H}_2\text{O}$	758.71	col, ms				
sulfate	Gd_2S_3	362.50	wh. ms, hygr	7.64	3349		
selenate-8-water	$\text{Gd}_2(\text{SeO}_4)_3 \cdot 8\text{H}_2\text{O}$	887.50	pearly, ms	3.309	-8H ₂ O, 130		
selenide	GdSe	236.2	cub	1860			
sulfate	$\text{Gd}_2(\text{SO}_4)_3$	607.68	col	4.139 ¹⁵	d 500	2.60 ²⁵	
sulfate-8-water	$\text{Gd}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$	746.81	col, mn	3.010 ¹⁵	anhyd 400	4.08	
sulfide	GdS	189.3	cub		2027		
(di-) sulfide, tri-	Gd_2S_3	419.69	yel-brn, cub, hygr	3.8	1865		

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